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ART UNIT	PAPER NUMBER
2463	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Application No.	Applicant(s)
	10/552,278	MERKEL ET AL.
Office Action Summary	Examiner	Art Unit	
	IAN N. MOORE	2463	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2010*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 January 2010* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   Applicant's amendments, to overcome the objection of specification, claims, and

rejection based on 35 U.S.C. 112, second paragraph and 35 U.S.C. 101 have been fully

considered and accepted. The objections and rejection on these issues have been withdrawn.

Response to Arguments

2.   Applicant's arguments with respect to <u>new</u> claims 22-41 have been considered but are

moot in view of the new ground(s) of rejection.

        Regarding new claims 22-41, the applicant argued that, "…Chen does not disclose or

suggest *in accordance with allocating a unique port of an Ethernet switch to insert compartment*

into which the withdrawable unit is installed so that the withdrawable unit can be uniquely

*identified and allocated a unique TCP/IP address…*Swales also does not disclose or suggest the

above-features...Swales does not discolor or suggest *an Ethernet having plurality of port*

respectively allocated to a corresponding one of the insert compartment such that each insert

compartment is allocated to a unique one of the ports, and the Ethernet Switch being configured

to communicate with each one of the withdrawable units via the field bus according into an

Ethernet TCP/IP protocol, such that one of the withdrawable units installed into a corresponding

one of the insert compartment is respectively allocated a unique TCP/IP address to enable the

*each one of the withdrawal units to constitute a TCP/IP interface…*by failing to disclose or

suggest arrangement of the Ethernet Switch and insert compartment, Chen and Swales also

cannot disclose or suggest the recited arrangement of the application server and database…" in
pages 14-17.

   In response to applicant's argument, **the examiner respectfully disagrees** with
argument set forth above.

   In response to applicant's arguments against the references individually, one cannot
show nonobviousness by attacking references individually where the rejections are based on
combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re
Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the rejection is based
on the **combined system** of Chen and Swales, and one must consider the combined system of as
a whole. Thus, applicant is analysis is clearly an error.

   In particular, the combined system of Chen and Swales discloses *in accordance with
allocating a unique port of an Ethernet switch to insert compartment into which the
withdrawable unit is installed so that the withdrawable unit can be uniquely identified and
allocated a unique TCP/IP address… an Ethernet having plurality of port respectively allocated
to a corresponding one of the insert compartment such that each insert compartment is allocated
to a unique one of the ports, and the Ethernet Switch being configured to communicate with each
one of the withdrawable units via the field bus according into an Ethernet TCP/IP protocol, such
that one of the withdrawable units installed into a corresponding one of the insert compartment
is respectively allocated a unique TCP/IP address to enable the each one of the withdrawal units
to constitute a TCP/IP interface,* as set forth detailed in new grounds of rejection.

   In response to applicant's argument "*by failing to disclose or suggest arrangement of
the Ethernet Switch and insert compartment, Chen and Swales also cannot disclose or suggest*

the recited arrangement of the application server and database", examiner **respectfully**

disagrees with the argument. The combination of Chen and Swales "as a combination" already

discloses applicant's <u>broadly claimed well known concept</u> of the invention. In particular, Chen

discloses a switch, insert slots, management system and memory. Swales also disclose Ethernet

Switch, a hub with a locations/area/session/ports for removable I/O or PC devices/modules,

monitored agent and database. In view of these evidences set froth above (and detailed evidences

set forth below in the rejection), it is clear that the combined system of Chen and Swales still

discloses the argued limitation, and again applicant argument is an error.

Claim Objections

3.   Claims 23-32 are objected to because of the following informalities:

Claim 23 recites, "such that <u>one of the withdrawable units</u> installed into a corresponding

one of the insert compartments <u>is respectively allocated</u> **a unique TCP/IP address** to enable the

each one of the withdrawable units" in line 15-20. For clearly, it is suggest to insert "**with**" (or

equivalent thereof) between "is respectively allocated" and "a unique TCP/IP address".

Claim 23-32 are also objected since they are depended on the objected claim set forth

above.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

5.   Claims 33-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

        Claim 33 recites, "allocating a respective unique TCP/IP address to each one of the

withdrawable units....at <u>one of **during installation** of the withdrawable units</u> into a

corresponding one of the insert compartment and **after installation** <u>of the withdrawable units</u>

into the corresponding one of the insert compartments" in lines 14-16.

        It is unclear whether TCP/IP address is allocated to (1) one withdrawable unit (2) one

withdrawable unit which is currently/during installed, (3) a corresponding one of the insert

compartment during installation, **or** (4) a combination thereof.

        It is unclear whether TCP/IP address is allocated to (1) one withdrawable unit (2) one

withdrawable unit which has already installed, (3) a corresponding one of the insert compartment

after installation, **or** (4) a combination thereof.

        For the purpose of the examination, examiner will interpret as best understood.

        Claims 34-41 are also rejected since they are depended upon rejection claim set forth

above.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 22, 23, and 26-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chen (US007002907B1) in view of Swales (WO 02/05107).

Regarding Claim 22, Chen discloses a switchgear assembly system (see FIG. 2, Switch

200; see col. 4, line 65 to col. 5, line 5) comprising:

withdrawable units (see FIG. 2, using insert-able/withdraw-able cards (e.g. trunk cards

214, tributary cards 208) each comprising a respective memory (see FIG. 2,

memory/database/storage on each card 214/208/210/212) configured to store therein appliance

operation information that is required for operation of the corresponding withdrawable unit (see

FIG. 2, stores operation information (e.g. card type, port density, transmission requirements)

which is required for operation of each card 214/216; *note that card equipments are trunks*

cards (OC-192, OC-768), and tributary cards (DS1, ATM, FR, DS3) must contain a

memory/database/storage in order to process data and communicates; see col. 5, line 5-20; see

col. 6, line 10-40)

a switchgear cabinet (see FIG. 2, switch Chassis assembly 202) including

a plurality of insert compartments (see FIG. 2, plurality of slots inside the chassis) each

configured to have installed thereinto a respective one of the withdrawable units (see FIG. 2,

each box/session/area/slots for corresponding/respective installable/insert-able/withdraw-able

cards (e.g. trunk cards 214, tributary cards 208); see col. 4, line 65 to col. 5, line 19),

a field bus (see FIG. 2, communication via a interconnection backplane/bus; see col. 5,

line 1-6) connected to each insert compartment (see FIG. 2, connects to each insert-able slot) to

provide communication to each withdrawable unit respectively installed into a corresponding

one of the insert compartments (see FIG. 2, communicates to each cards 214/208/210/212

installed in the corresponding/respective insert-able slots; see col. 4, line 65 to col. 5, line 25)

and

an switch (see FIG. 2,, cross-connect card (CCC) 210) having a plurality of ports

respectively (see FIG. 2, have plurality of cross connection interfaces/ports) allocated to a

corresponding one of the insert compartments (see FIG. 2, assigned/allocated to one of the slots

(e.g. tributary slots or trunk slots)) such that each insert compartment is allocated to a unique one

of the ports (see FIG. 2, so that each insert-able slot is assigned/allocated to one uniquely address

of the interface/port (e.g. slots address 204,208 corresponding to for card address T_0-T_n,t_0-t_n

214,216); see col. 5, line 6-15; *in other words, note that CCC 210 communicates with both*

tributary or trunk slots using ports/interfaces, each slot assigns/allocate to specific port/interface

with unique slot address));

the switch being configured to communicate with each one of the withdrawable units (see

FIG. 2, CCC 210 communicates with cards 214/216) via the field bus (see FIG. 2, via

backplane) according to an protocol (see FIG. 2, according to backplane/bus rule/protocol), such

that each one of the withdrawable units installed into a corresponding one of the insert

compartments is respectively allocate a unique address (see FIG. 2, such that one insert-able card

installed/inserted into one slot is allocated/assigned with a unique card address T_0-T_n,t_0-t_n

214,216) to enable the each one of the withdrawable units to constitute an interface (see FIG. 2,

to enable cards to constitute/comprise an interface/port (to communicate); see col. 4, lines 65 to

col. 5, line 20);

an application server (see FIG. 10, 11, network management system) configured to assign

the respectively unique address (see FIG. 2, 10, 11, assign/provision specific/unique address

according to the default equipment template) to each one of the withdrawable units installed into

a corresponding one of the insert compartments (see FIG. 2, 10, 11, each new card inserted into

the slot; see col. 5, line 63 to col. 7, line 10; see col. 7, line 25-60; see col. 8, line 16-55; see col.

11, line 30 to col. 12, line 25) and

       a database (see FIG. 10, 11, database/memory 1015, 1053 inside the network

management system) configured to at least one of store and manage respective appliance data for

each one of the withdrawable units (see FIG. 3A, stores and managed the card address

information data for each cards in the chassis; see col. 6, line 1-40; see col. 10, line 55 to col. 11,

line 40).

       Although Chen discloses an switch having a plurality of ports, the switch being

configured to communicate with each one of the withdrawable units via filed bus according to an

protocol, and each one of the withdrawabe units installed into a corresponding one of the insert

compartments in respectively allocated a unique address to enable the each one of the

withdrawable unit to constitute a interface as set froth above,

       Chen does not explicitly disclose *"Ethernet"* switch, *"Ethernet TCP/IP protocol"* and

"TCP/IP" address, and *"TCP/IP interface"*.

       However, Swales teaches a switchgear assembly system (see FIG. 1, local Plant Area

having switching setup/assembly) comprising:

       withdrawable units (see FIG. 1, using replaceable/removable I/O modules/devices 50,

PC (personal computers) devices/modules 60; page 24, abstract) each comprising a respective

memory (see FIG. 1-3, each I/O 50 or PC 60 have a memory/database/recording) configured to

store therein appliance operation information that is required for operation of the corresponding

withdrawable unit (see FIG. 1-2, to store/memorize/record the operation/process information (e.g. address, tasks, port) that is required for operation of corresponding I/O or PC devices; *in order to respond ARP/BOOTP/SNMP/DHCP request for address, each device must store the address*; see page 24, line 19-20; page 25, line 1-5; page 26, lines 4-6, 12-16; page 27, lines 1-3, 26-29; page 30, line 6-9; page 31, line 4-6, 10-22);

a switchgear cabinet (see FIG. 1-3, switching cabinets/hubs with insert/located into I/O port; see page 24-27; abstract), including

a plurality of compartments (see FIG. 1-3, plurality of session/area/compartments) each configured to have configured there into a respective one of the withdrawable units (see FIG. 1-3, each session/area/compartments configured into associated/respective I/O or PC modules/devices 50,60; see page 24-27; abstract);

a field bus (see FIG. 1-3, a connection/bus between managed Ethernet switch 20 and cabinets/hubs; page 24) connected to each compartment (see FIG. 1-3, connect to each session/area/compartments) to provide communication to each withdrawable unit respectively configured into a corresponding one of the compartments (see FIG. 1-3, to communicate to I/O or PC modules/devices 50,60 which are configured into a corresponding session/area/compartments; page 24, line 15 to page 25, line 20);

the Ethernet switch (see FIG. 1-2, Ethernet Switch 20; pages 23-24), being configured to communicate with each one of the withdrawable units via the field bus (see FIG. 1-2, communicate with I/O or PC modules/devices 50, 60 via connection/bus) according to an Ethernet TCP/IP protocol (see FIG. 1-2, according to Ethernet TCP/IP protocol; see page 24, line 10-25; pages 20-27), such that each one of the withdrawable units configured into a

corresponding one of the compartments (see FIG. 1-2, I/O or PC modules/devices 50,60

configured into corresponding/associated session/area/compartments) is respectively allocate a

unique TCP/IP address (see FIG. 1-3, assign/allocate a specific/unique MAC/IP address (i.e.

TCP/IP address)) to enable the each one of the withdrawable units to constitute a TCP/IP

interface (see FIG. 1-3, to enable/have I/O or PC modules/devices 50,60 with TCP/IP

interface/port; see pages 23-27);

an application server (see FIG. 1, 2, monitor agent 10) configured to assign the

respectively unique TCP/IP address (see FIG. 1, 2, assign/allocate unique/specific MAC/IP

address; pages 20-27) to each one of the withdrawable units configured into a corresponding one

of the compartments (see FIG. 1, 2, to I/O or PC modules/devices 50, 60 configured into

corresponding session/area/compartments pages 20-27); and

a database (see FIG. 1, database of the monitored agent; see page 25) configured to at

least one of store and manage respective appliance data for each one of the withdrawable units

(see FIG. 1-2, configured to store and manage/control each port assignments or MAC/IP address

for each removable/replaceable I/O or PC modules/devices 50,60).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to provide "*Ethernet*" switch, "*Ethernet TCP/IP protocol*" and "*TCP/IP*"

address, and "*TCP/IP interface*" as taught by Swales in the system of Chen, so that it would

provide TCP/IP technology to determine prompt identification of network devices that have

failed in service; see Swales page 15.

Regarding Claim 23, Chen discloses wherein the application server and database are

arranged external to the switchgear cabinet (see FIG. 3A, network management system and

database/memory 1015,1053 (see FIG. 10, 11) are outside of the switch Chassis assembly 202;

see col. 6, line 1-40; see col. 10, line 55 to col. 11, line 40). Swales also discloses wherein the

application server and database are arranged external to the switchgear cabinet (see FIG. 1, 2

monitor agent and database of the monitor agent are outside of local switching plan area/cabinet;

see page 20-27).

Regarding Claim 26, Chen discloses wherein the appliance data stored in the database

(see FIG. 1-3, operation data information regarding the cards stored in the database/memory

1015,1053 (see FIG. 10,11)) includes a unique address assigned to each one of the withdrawable

units (see FIG. 1, 3A, 10, 11, includes corresponding unique/specific card address/identification

assigned to the insert-able cards by the network management system; see col. 4, line 55 to col.

11, line 40). Swales also discloses wherein the appliance data stored in the database (see FIG. 1,

2, monitor agent's database stores the I/O or PC data) includes the respectively unique TCP/IP

address assigned to each one of the withdrawable units by the application server (see FIG. 1, 2,

includes corresponding unique MAC/IP address assigned to one of I/O or PC devices/module by

the monitored agent; page 20-27). Thus, the combined system of Chen and Swales still disclosed

the claimed invention set forth in claim 26.

Regarding Claim 27, Chen discloses wherein the appliance data stored in the database

(see FIG. 10, 11, database/memory 1015, 1053 inside the network management system) includes

information relating to at least one of an installation location and an intended application of each

one of the withdrawable units, respectively (see FIG. 1, 2, the network management database

maintains the identification of each insert-able/withdraw-able cards location T_0-T_n,t_0-t_n and

intended application (i.e. tributary, trunk, cross-connect) of each card (e.g. trunk cards 214,

tributary cards 208, cross-connect cards 210/212); see col. 5, line 6-15; see col. 6, line 5-42) .

Swales discloses wherein the appliance data stored in the database includes information relating

to at least one of an installation location and an intended application of each one of the

withdrawable units, respectively (see page 24-28).

     Regarding Claim 28, Chen discloses wherein the appliance data stored in the database

(see FIG. 10, 11, database/memory 1015, 1053 inside the network management system) includes

information relating to a corresponding one of the ports allocated to each one of the

withdrawable units, respectively (see FIG. 10, 11, contains each insert-able/withdraw-able cards

in information to the ports location T_0-T_n,t_0-t_n see col. 5, line 6-15; see col. 6, line 5-42). Swales

also discloses wherein the appliance data stored in the database (see FIG. 1, database of the

monitored agent; see page 25) includes information relating to the Ethernet switch (see FIG. 1-2,

Ethernet switch 20 addresses) and to a corresponding one of the ports allocated to each one of

the withdrawable units, respectively (see FIG. 1-2, ports assignments of the Ethernet switch

where each removable/replaceable device is located; see page 24-25).

     Regarding Claim 29, Chen discloses wherein the application server is configured to

interchange the appliance data (see FIG. 1, 3A, 308,330, network management system

updates/interchange operation information (e.g. card type, port density, transmission

requirements)) between the database (see FIG. 3A, automatically updated between database; see

FIG. 10, memory 1015, FIG. 11, memory 1053) and at least one of the withdrawable units (see

FIG. 1, insert-able/withdraw-able cards). Swales discloses wherein the application server is

configured to interchange the appliance data between the database and at least one of the

withdrawable units (see FIG. 1, the device data is communicated from the database of the agent

10 to the removal device via the agent 10; see page 25-27).

Regarding Claim 30, Chen discloses wherein the application server is configured to

execute appliance identification software to identify the withdrawable unit (see FIG. 10, 11,

network management system contain identification computer software/program to identify each

insert-able/withdraw-able cards) which is allocated to a corresponding one of the plurality of

ports of the switch (see FIG. 11, allocated/assigned to one port/slot in a switch; see col. 10, line

45-35; see col. 5, line 5-26). Swales discloses wherein the application server is configured to

execute appliance identification software to identify the withdrawable unit which is allocated to a

corresponding one of the plurality of ports of the Ethernet switch (see FIG. 1, monitor agent 10

contains management software/program to identify/address the removable device, which is

assigned/allocated to one port/slot of an Ethernet switch; see pages 24-28).

Regarding Claim 31, Chen discloses wherein the application server is configured to

execute the appliance identification software to identify a type of the withdrawable unit (see FIG.

10, 11, network management system contain identification computer software/program to

identify type of each insert-able/withdraw-able cards in the switch, e.g. tributary, trunk, Cross

connect cards; or active or fail cards) which is allocated to the corresponding one of the ports of

the switch (see FIG. 11, allocated/assigned to one port/slot in a switch; see col. 10, line 45-35;

see col. 5, line 5-26). Swales also discloses wherein the application server is configured to

execute the appliance identification software to identify a type of the withdrawable unit (see FIG.

1, monitor agent 10 contains management software/program to identify/address type the

removable device, i.e. new, old, fail cards) which is allocated to the corresponding one of the

ports of the Ethernet switch (see FIG. 1, assigned/allocated to one port/slot of an Ethernet switch;

see pages 24-28).

Regarding Claim 32, Chen discloses wherein the application server is configured to

execute the appliance identification software to control an interchange of appliance data (see

FIG. 10, 11, network management system contain computer software/program controls/manages

the exchange/communication of data) between the database (see FIG. 3A, automatically updated

between database; see FIG. 10, memory 1015, FIG. 11, memory 1053) and each one of the

withdrawable units (see FIG. 1, 3A, insert-able cards). Swales discloses wherein the application

server is configured to execute the appliance identification software to control an interchange of

appliance data (see FIG. 1, monitor agent 10 contains management software/program to controls

the downloading/communication of data for the removable device) between the database and

each one of the withdrawable units (see FIG. 1, between the database of the agent 10 and

removal/new I/O or PC device/modules; see page 25-27).

Regarding Claim 33, Chen discloses a method of installing withdrawable units in a

switchgear assembly (see FIG. 2, installing insert-able/withdraw-able cards (e.g. trunk cards 214,

tributary cards 208) in Switch 200; see col. 4, line 65 to col. 5, line 5), the method comprising:

installing withdrawable units (see FIG. 2, installing/inserting insert-able/withdraw-able

cards (e.g. trunk cards 214, tributary cards 208)) in a respective one of a plurality of insert

compartments (see FIG. 1-3, plurality of session/area/compartments) of a switchgear cabinet (see

FIG. 2, switch Chassis assembly 202), the withdrawable units each including a respective

memory (see FIG. 2, cards 214,208 having a corresponding memory/database/storage on each

card 214/208/210/212) configured to store therein application operation information that is

required for operation of the corresponding withdrawable unit (see FIG. 2, stores operation

information (e.g. card type, port density, transmission requirements) which is required for

operation of each card 214/216; *note that card equipments are trunks cards (OC-192, OC-768),*

and tributary cards (DS1, ATM, FR, DS3) must contain a memory/database/storage in order to

process data and communicates; see col. 5, line 5-20; see col. 6, line 10-40);

connecting each insert compartment (see FIG. 2, connects to each insert-able slot) to a

field bus (see FIG. 2, communication via a interconnection backplane/bus; see col. 5, line 1-6);

connecting each insert compartment (see FIG. 2, connecting one of the slots (e.g.

tributary slots or trunk slots)) to a respectively unique one of a plurality of ports of the switch

(see FIG. 2, specific/unique ports/interface of the plurality of cross connection interfaces/ports;

in other words, note that CCC 210 communicates with both tributary or trunk slots using

ports/interfaces, each slot assigns/allocate to specific port/interface with unique slot address; see

col. 5, line 6-15) via the field bus (see FIG. 2, via backplane/bus) to enable the switch to

communicate according to the protocol (see FIG. 2, to communicates with CCC 211 according to

backplane/bus rule/protocol; see col. 4, lines 65 to col. 5, line 20) with each one of the

withdrawable units installed into a corresponding one of the insert compartments (see FIG. 2,

with cards 214,216 installed into corresponding slots 204,208; see col. 4, lines 65 to col. 5, line

20);

automatically allocating a respectively unique address to each one of the withdrawable

units (see FIG. 1, 2, 4, automatically provisioned/allocate a specific/unique address/identification

to the cards 214,216) by an application server (see FIG. 1, 2, 4, by the network management

system) connected to the switch (see FIG. 1, 2, 4, connected to the CCC 210; see col. 5, line 55-

to col. 6, line 50; see col. 11, line 30 to col. 12, line 25)) at one of during installation of the

withdrawable units (see FIG. 1, 2, 4, during installing of a new card 214, 216; see col. 4, lines 65

to col. 5, line 20) into a corresponding one of the insert compartments (see FIG. 1, 2, 4, into

corresponding slot 204, 208) and after installation of the withdrawable units (see FIG. 1, 2, 4,

after installation of a new card 214,216) into the corresponding one of the insert compartments

(see FIG. 1, 2, 4, into corresponding slot 204, 208; see col. 4, lines 65 to col. 5, line 20); and

downloading the application operation information (see FIG. 3A, 208, 330, transmitting

(*from the database of the network management system to the cards (i.e. downloading)*) the

operation/provisioning information ((e.g. card type, port density, transmission requirements)))

from a database (see FIG. 3A, from database; see FIG. 10, memory 1015, FIG. 11, memory 1053

of the network management system) to the memory of each withdrawable unit (see FIG. 3A, to

the storage/memory of the cards 214,216; see col. 6, line 1-40; see col. 10, line 55 to col. 11, line

40) automatically assigned a respectively unique address upon installation (see FIG. 3A, network

management automatically assigns/allocates specific/unique address/identification upon

installation) into a corresponding one of the insert compartments (see FIG. 2, into corresponding

slots 204, 208; see col. 6, line 1 to col. 11, line 40).

Although Chen discloses connecting each insert compartment to a respectively unique

one of a plurality of ports of the Ethernet switch via the field bus to enable the Ethernet switch to

communicate according to the Ethernet TCP/IP protocol , automatically allocating a respectively

unique TCP/IP address to each one of the withdrawable units by an application server connected

to the Ethernet switch; and downloading the application operation information from a database to

the memory of each withdrawable unit automatically assigned a respectively unique TCP/IP

address upon installation into a corresponding one of the insert compartments as set froth above,

Chen does not explicitly disclose "*Ethernet*" switch, "*Ethernet TCP/IP protocol*" and

"*TCP/IP*" address.

However, Swales teaches a method of installation of withdrawable units (see FIG. 1,

using replaceable/removable I/O devices; page 24, abstract) in switchgear assemblies (see FIG.

1, local Plant Area having switching setup/assembly),

installing withdrawable units (see FIG. 1, installing using replaceable/removable I/O

modules/devices 50, PC (personal computers) devices/modules 60; page 24, abstract) in a

respective one of a plurality of compartments (see FIG. 1-3, in plurality of

session/area/compartments) of a switchgear cabinet (see FIG. 1-3, switching cabinets/hubs with

insert/located into I/O port; see page 24-27; abstract), the withdrawable units each including a

respective memory (see FIG. 1-3, each I/O 50 or PC 60 modules/devices have a

memory/database/recording) configured to store therein application operation information that is

required for operation of the corresponding withdrawable unit (see FIG. 1-2, to

store/memorize/record the operation/process information (e.g. address, tasks, port) that is

required for operation of corresponding I/O or PC devices; *in order to respond*

ARP/BOOTP/SNMP/DHCP request for address, each device must store the address; see page

24, line 19-20; page 25, line 1-5; page 26, lines 4-6, 12-16; page 27, lines 1-3, 26-29; page 30,

line 6-9; page 31, line 4-6, 10-22);

connecting each compartment (see FIG. 1-3, connect to each session/area/compartments) to a field bus (see FIG. 1-3, a connection/bus between managed Ethernet switch 20 and cabinets/hubs; page 24);

connecting each compartment to a respectively unique one of a plurality of ports of the Ethernet switch (see FIG. 1-2, connecting each session/area/compartments to corresponding ports of the Ethernet switch 20; pages 23-24) via the field bus (see FIG. 1-2, via connection/bus) to enable the Ethernet switch to communicate according to the Ethernet TCP/IP protocol (see FIG. 1-2, to have Ethernet Switch 20 communicates using Ethernet TCP/IP protocol) with each one of the withdrawable units installed into a corresponding one of the compartments (see FIG. 1-2, with each I/O 50 or PC 60 devices/modules installed into corresponding session/area/compartments; pages 23-25);

automatically allocating a respectively unique TCP/IP address to each one of the withdrawable units (see FIG. 1, automatically allocates specific MAC/IP address (i.e. TCP/IP address) to I/O 50 or PC 60 devices/modules) by an application server (see FIG. 1, by monitored agent 10) connected to the Ethernet switch (see FIG. 1, connects to Ethernet switch 20) at one of during installation of the withdrawable units (see FIG. 1, during/while installing for I/O 50 or PC 60 devices/modules) into a corresponding one of the compartments (see FIG. 1, into associated session/area/compartments) and after installation of the withdrawable units into the corresponding one of the insert compartments (see FIG. 1, after installation of I/O and PC devise into associated session/area/compartments; see pages 23-27); and

downloading the application operation information (see FIG. 1-2, transmit/install (i.e. downloading) operation/installing information (e.g. port assignment, MAC address) from a

database (see FIG. 1-2, from the monitor agent's database) to the memory of each withdrawable

unit automatically (see FIG. 1-2, to the memory/storage/recording of the I/O and PC devices

automatically) assigned a respectively unique TCP/IP address upon installation (see FIG. 1-2,

assign a corresponding MAC/IP address upon installation of new/replaceable device) into a

corresponding one of the compartments (see FIG. 1-2, into a associated

session/area/compartments; see pages 23-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to provide *"Ethernet"* switch, *"Ethernet TCP/IP protocol"* and *"TCP/IP"*

address as taught by Swales in the system of Chen, so that it would provide TCP/IP technology

to determine prompt identification of network devices that have failed in service; see Swales

page 15.

Regarding Claim 34, Chen discloses wherein the application operation information for

each withdrawable unit installed into a corresponding one of the insert compartments is

downloaded from the database via the application server (see FIG. 3A, 308,330, the application

information (e.g. card type, port density, transmission requirements) for insert-able/withdraw-

able card, installed/inserted into corresponding slots, are transmitted/downloaded via network

management system; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line

25). Swales also discloses wherein the application operation information for each withdrawable

unit installed into a corresponding one of the compartments is downloaded from the database via

the application server (see FIG. 1-2, each port assignments or MAC address of each

removable/replaceable device is installed/downloaded to the I/O or PC device in the

corresponding area/location via the network monitor agent 10; see page 24-25; abstract).

Regarding Claim 35, Chen discloses wherein the application operation information and additional appliance information for each respective one of the withdrawable units are downloaded automatically from the database to the withdrawable units (see FIG. 3A, 308,330, card type, port density, transmission requirements, address (i.e. operation information) and software/application-information (i.e. additional appliance information) for insert-able cards are transmitted/downloaded from the memory/database to insert-able/withdraw-able card; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25) upon installation in a corresponding one of the insert compartments (see FIG. 1, when installing/inserting in the corresponding slots in the switch Chassis assembles 202; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25). Swales discloses wherein the application operation information and additional appliance information for each respective one of the withdrawable units are downloaded automatically from the database to the withdrawable units (see FIG. 1-2, port assignments, IP address, MAC address and program/application data are installed/downloaded to the removable device by database of the network monitor agent 10 to the removable device; see page 24-25; abstract) upon installation in a corresponding one of the compartments (see FIG. 1, when the installation in corresponding area/location/section cabinets/hubs; see page 24-25; abstract).

Regarding Claim 36, Chen discloses wherein each of the withdrawable units communicates with the port of the switch to which the corresponding one of the insert compartments is uniquely connected (see FIG. 1, insert-able/withdraw-able cards communicate with cross-connect card (CCC) to which corresponding slot is specifically connected with specific card identification T, t; see col. 5, line 55- to col. 6, line 50; see col. 11, line 30 to col.

12, line 2). Swales discloses wherein each of the withdrawable units communicates via TCP/IP

with the port of the Ethernet switch to which the corresponding one of the insert compartments is

uniquely connected (see FIG. 1, removable/replaceable I/O or PC devices/modules in the local

plant area/cabinet communicate via TCP/IP Ethernet with Ethernet Switch 20 to which

corresponding area/location/section is specifically connected to a specific port see pages 20-27).

Regarding Claim 37, Chen discloses storing appliance data for each one of a plurality of

switchgear assembly appliances in the database (see FIG. 3A, 308,330, card type, port density,

transmission requirements, address and software/application-information data (i.e. appliance

data) for each TMO switch 102,106 (see FIG. 1) is managed/controlled by database/memory

embedded in the network management system; note that detailed of TMO switch 102,106 is also

shown in FIG. 2 as switch 200; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to

col. 7, line 25). Swales discloses storing appliance data for each one of a plurality of switchgear

assembly appliances in the database (see FIG. 1, storing application data (i.e. port, type, IP,

MAC address, etc.) for each local Plant Area having switching setup/assembly is managed in the

memory/database of the monitor agent 10; see pages 24-27).

Regarding Claim 38, Chen discloses storing in the database, for each respective one of

the withdrawable units, information about use of the withdrawable unit and the appliance

operation information of the withdrawable unit, together with information about a location of the

insert compartment in which the withdrawable unit is installed (see FIG. 1, 3A, storing in the

memory of the network management system, for each insert-able cards, the used/operated/active

card address/identification of the insert-able card and associated information (e.g. card type, port

density, etc.) of the insert-able card, together with installed slot location

information/identification in the chassis in which insert-able card is installed/inserted; see col. 5,

line 1-20; see col. 6, line 10-40; see col. 10, line 56 to col. 11, line 63; see col. 12, line 9-17).

Swales discloses storing in the database, for each respective one of the withdrawable units,

information about use of the withdrawable unit and the appliance operation information of the

withdrawable unit, together with information about a location of the compartment in which the

withdrawable unit is installed (see FIG. 1, 2, storing in the database/memory, for removable I/O

or PC devices/modules 50, 60, data information for active/used/new of removable I/O or PC

devices/modules and the operation information (e.g. port assignments, IP address, MAC address)

of the removable I/O or PC devices/modules, together with identification/location of area

/session in which removable I/O or PC devices/modules installed; see pages 24-28).

Regarding Claim 39, Chen discloses identifying, in the application server, a type of each

withdrawable unit application server (see FIG. 10, 11, network management system

automatically identifies/determines the type of each insert-able/withdraw-able cards in the

switch, e.g. tributary, trunk, Cross connect cards; or active or fail cards; see col. 10, line 45-35;

see col. 5, line 5-26) during installation of each withdrawable unit in a corresponding one of the

insert compartments, respectively (see FIG. 1, while installing in the dedicated slots in the

switch Chassis assembles 202; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to

col. 7, line 25). Swales discloses identifying, in the application server, a type of each

withdrawable unit application server (see FIG. 1, monitor agent 10 automatically

determines/identifies type the removable device, i.e. new, old, fail cards, by the monitor agent

10) during installation of each withdrawable unit in a corresponding one of the insert

compartments, respectively (see FIG. 1, while/during installing at dedicated port/address in the local plant area/cabinet; pages 24-29).

Regarding Claim 40, Chen discloses automatically checking appliance data stored in the database with the respective type of each withdrawable unit application identified by the application server (see FIG. 1, 3A-B, insert-able/removable card information data stored in the memory is checked/compared with card type identified/determined by the network management to detect mismatch; see col. 6, line 5-40). Swales discloses automatically checking appliance data stored in the database with the respective type of each withdrawable unit application identified by the application server (see FIG. 1, the device data stored in the database of the monitor agent is automatically checked/compared with the type determined/detected by the network monitor agent 10; pages 24-29).

8.   Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Swales as applied to claims above, and further in view of Daude (US 7,254,630).

Regarding Claim 24, Chen discloses wherein the application server is configured to communicate with the switch included in the switchgear cabinet (see FIG. 1, 3A, network management system communicates with CCC 210 included in switch Chassis assembly 202),

the application server is configured to assign the respectively unique address to each one of the withdrawable units upon being first installed into a corresponding one of the insert compartments (see FIG. 1, 2, network management system assigns specific card address/identification to new cards 214/216 being first/newly installed into a corresponding one of the insert slot 204/208; see col. 4, line 58 to col. 6, line 52), and

the application server is configured as a server to manage allocation of the unique

address for each one of the withdrawable units (see FIG.1, 3A; network management system is a

server that manages unique address/identification of cards 214/216; see col. 4, line 58 to col. 6,

line 52).

　　　Swales also discloses wherein the application server (see FIG. 1, 2, monitor agent) is

configured to communicate with the Ethernet switch (see FIG. 1, 2, communicates with Ethernet

switch 20) included in the switchgear cabinet (see FIG. 1, 2, include in the switching

cabinets/hubs with insert/located into I/O port; see page 24-27; abstract), the application server is

configured to assign the respectively unique TCP/IP address to each one of the withdrawable

units (see FIG. 1, 2, monitor agent assigns/allocates specific IP/MAC address to new of I/O or

PC modules/devices 50,60) upon being first installed into a corresponding one of the

compartments (see FIG. 1, 2, upon being first/newly installed into a corresponding one of

area/location; pages 23-27), and

　　　the application server is configured as a server to manage allocation of the unique TCP/IP

address for each one of the withdrawable units (see FIG. 1, 2, monitor agent manages

allocation/assignment of specific IP/MAC address for each I/O or PC modules/devices 50, 60;

pages 24-31).

　　　Although the combined system of Chen and Swales discloses a application server,

　　　Neither Chen nor Swales explicitly discloses "*DHCP*" server.

　　　However, Daude discloses the application server is configured as a DHCP server (see

FIG. 1, DHCP server 102) to manage allocation of the unique TCP/IP address for each one of the

units (see FIG. 1, manages allocation/assignment of unique/specific IP address for each of the client 101; see col. 3, line 55 to col. 5, line 1; see col. 8, line 1-49).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "DHCP" server as taught by Daude, in the combined system of Chen and Swales, so that it would provide optimizing performance and availability of a Dynamic Host Configuration Protocol (DHCP) service provided by one or a plurality of DHCP servers in an Internet Protocol (IP) network; see Daude col. 6, line 34-40.

Regarding Claim 25, Chen discloses wherein the appliance data stored in the database (see FIG. 1-3, operation data information regarding the cards stored in the database/memory 1015,1053 (see FIG. 10,11)) includes the respectively unique address assigned to each one of the withdrawable units by the application server (see FIG. 1, 3A, 10, 11, includes corresponding unique/specific card address/identification assigned to the insert-able cards by the network management system; see col. 4, line 55 to col. 11, line 40). Swales also discloses wherein the appliance data stored in the database (see FIG. 1, 2, monitor agent's database stores the I/O or PC data) includes the respectively unique TCP/IP address assigned to each one of the withdrawable units by the application server (see FIG. 1, 2, includes corresponding unique MAC/IP address assigned to one of I/O or PC devices/module by the monitored agent; page 20-27). Thus, the combined system of Chen and Swales still disclosed the claimed invention set forth in this claim.

9.   Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Swales as applied to claims above, and further in view of Maloy (US 6,557,049).

Regarding Claim 41, Chen discloses at least one of monitoring at least one method step as set forth in claim above.

Neither Chen nor Swales explicitly discloses "*manually carrying out*".

However, Maloy discloses at least one of monitoring and manually carrying out at least one method step (abstract, FIG. 1, monitoring and processing manually when required to one process/method step/function).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "*carried out manually if required*" as taught by Maloy, in the combined system of Chen and Swales, so that it would provide a mechanism for entering input for optional manual configuration of an operational feature of the enclosure module; see Maloy col. 4, line 45-59.

Conclusion

10.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to IAN N. MOORE whose telephone number is (571)272-3085.

The examiner can normally be reached on 7:30 AM- 4:00 PM.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Derrick W. Ferris can be reached on 571-272-3123. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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